



PATENTS ONLY

Attorney Docket No. 10007763-1

1. Name of conveying party(ies):

Zhizhang Chen
Michael David Bice
Ronald L. Enck
Michael J. Regan
Thomas Novet
Paul J. Benning

2. Name and address of receiving party(ies):

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

COPYAdditional name(s) of conveying party(ies) attached Yes No Additional name(s) & address(es) attached? Yes No

3. Nature of Conveyance:

- Assignment Merger Change of Name
 Security Agreement Other

Execution Date(s): 8/03/01; 08/16/01; 08/02/01; 08/16/01; 08/16/01; 08/06/01

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, execution date of the application is:

A. Patent Application No.(s)

Application No.: 09/846,047

Date Filed: 04/30/2001

B. Patent No.(s)

Confirmation No.: 4496

Additional numbers attached? NO

5. Name and address of party to whom correspondence concerning document should be mailed:

Records Manager
HEWLETT-PACKARD COMPANY
1000 Circle Blvd.
MS 422B
Corvallis, OR 97330

6. Total number of applications and patents involved: 1

7. Total Fee (37 CFR 3.41): \$40.00

 Enclosed Authorization to be charged to deposit account.8. Deposit Account Number: 08-2025**DO NOT USE THIS SPACE**

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Teresa K. Tuma
Name of Person Signing

Teresa K. Tuma
Signature

Jan 30, 2002
Date

Total number of pages including cover sheet, attachments, and document: 4

OMB No. 0651-0011 (exp. 4/94)

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PATENT APPLICATION
ATTORNEY DOCKET NO. 10007763-1

ASSIGNMENT OF PATENT APPLICATION

COPY

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD COMPANY, a Delaware corporation having its principal place of business in Palo Alto, California, (hereinafter HP), in furtherance of my/our obligations to HP, and do hereby assign and transfer to HP, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Letters Patent of the United States entitled:

Silicon-Based Dielectric Tunneling Emitter

Filing date: 04/30/2001 Application No.: 09/846,047

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said Letters Patent.

I/we additionally authorize HP to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by HP, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made;

AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to HP, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HP, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, C-I-P's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HP, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by HP;

AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to HP, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

I/we further authorize and direct HP attorneys to insert the serial number and filing date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.

IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):


Inventor's Signature (Seal)

Date Assignment Signed: 8/31/01

Inventor's Typed Name: Zhihang Chen

Date Application Signed: 8/31/01

State of Oregon)
County of Benton) ss.:
)

Before me this 3 day of August 2001, personally appeared Zhihang Chen who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.




Notary Public
My commission expires: 9-8-2004

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Intellectual Property Administration
P. O. Box 272400
Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. 10007763-1

COPY

ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I we hereunto set my/our hand(s) and seal(s):

Inventor's Signature (Seal)

Date Assignment Signed: 8/16/01

Inventor's Typed Name: Michael David Bice

Date Application Signed: 8/16/01

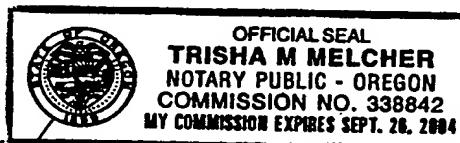
State of Oregon

)

County of Benton

)
ss.:

Before me this 16 day of Aug. 2001, personally appeared Michael David Bice who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.



Notary Public

My commission expires: Sept. 26, 2004

Inventor's Signature (Seal)

Date Assignment Signed: 8/2/2001

Inventor's Typed Name: Ronald L. Enck

Date Application Signed: 8/2/2001

State of Oregon

)

County of Benton

)
ss.:

Before me this 2nd day of August 2001, personally appeared Ronald L. Enck who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.



Notary Public

My commission expires: 9-8-2004

Inventor's Signature (Seal)

Date Assignment Signed: 8/16/01

Inventor's Typed Name: Michael J. Regan

Date Application Signed: 8/16/01

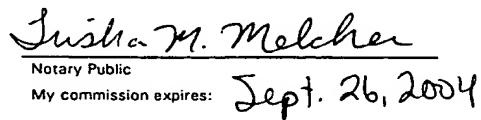
State of Oregon

)

County of Benton

)
ss.:

Before me this 16 day of Aug. 2001, personally appeared Michael J. Regan who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.



Notary Public

My commission expires: Sept. 26, 2004

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Fort Collins, Colorado 80527-2400

PATENT APPLICATION
ATTORNEY DOCKET NO. 10007763-1

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ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I we hereunto set my/our hand(s) and seal(s):

Inventor's Signature (Seal)

Date Assignment Signed: 8/16/01

Inventor's Typed Name: Thomas Novet

Date Application Signed: 8/16/01

State of Oregon

)

) ss.:

County of Benton

)

Before me this 16 day of Aug. 2001, personally appeared Thomas Novet who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

Notary Public

My commission expires:

Sept. 26, 2004


Inventor's Signature (Seal)

Date Assignment Signed: 6-Aug-01

Inventor's Typed Name: Paul J. Benning

Date Application Signed: 6-Aug-01

State of Oregon

)

) ss.:

County of Benton

)

Before me this 6/A day of Aug. 2001, personally appeared Paul J. Benning who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

Teresa K. Tuma
Notary Public
My commission expires: 9-8-2004

Inventor's Signature (Seal)

Date Assignment Signed: _____

Inventor's Typed Name: _____

Date Application Signed: _____

State of _____

)

) ss.:

County of _____

)

Before me this _____ day of _____, personally appeared _____ who is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed.

Notary Public
My commission expires: _____